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ABSTRACT

Investigated was the utility of self-descriptions as tools for personality assessment. It was hoped that self-descriptions would fall into a reasonably tight typology and that these types would be related to important behavioral and attitudinal measures. College students (N=94) participated in structured interviews, and a short form of the Omnibus Personality Inventory and the College Student Questionnaire. Nine bipolar trait dimensions emerged in the content analysis, and were clustered into four groups related to standardized scaled measures of personality, ratings of satisfaction in the program, and academic achievement. A method for handling self-description data is proposed, and insights into the important relationships between self-image and personality are provided. (Author/KA)

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A TYPOLOGICAL ANALYSIS OF SPONTANEOUS SELF-DESCRIPTIONS

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The research described here set out to examine the relationship of a student's self-concept to his values, attitudes, satisfaction, and scholastic performance. These interrelationships are, of course, quite complex. A student's self-image not only shapes his performance and attitudes but it is also the product of his experiences. For this reason we will be able to make no definitive statements about the direction of causality in our findings. Nevertheless, it will be clear in some instances that a certain self-concept would necessarily lead to a specific outcome and in others that certain experiences would have a definite effect on self-concept.

The major problem in doing research on self-concept and its correlates in the past has been that it is difficult to remain true to a person's spontaneous self-description while gathering data which is amenable to quantification and analysis. Wylie (1974) even hesitates to include tests such as the Who-Are-You and the Twenty Sentences Test in her review of self-concept measures. These tests pose problems because they are almost entirely unstructured, the subjects being asked simply to make statements about themselves as they come to mind. Any attempt to content-analyze these statements or to quantify them in some way necessarily abstracts the researcher from the raw data of human experience. We will try to show that it is possible to deal with such data in a manner which does not do exceeding injustice to the subject's self-perception.

The impetus for our work came from recent developments in trait theory. It has been shown repeatedly (Bem and Allen, 1974; Markus, 1977) that the trait concept is more profitably employed when the individuals being assessed are permitted to indicate the relevance of any particular trait dimension to a description of their behavior. These studies were done in response to Mischel's (1968) claim that traits held little predictive utility. It became apparent that the problem with trait measures was the nomothetic assumption underlying their use, i.e., that each individual has a discernible level on every trait dimension. In the above mentioned studies, the subject was allowed to judge his own consistency on certain trait dimensions or the researcher determined from the subject's previous responses whether the dimension was relevant or not by examining those responses for consistency. These studies show that such semi-idiographic approaches are fruitful and that the trait concept is more valid when strict nomothetic approaches are abandoned.

The subject is most in control and has the greatest input with regard to the dimensions used to describe him when his spontaneous self-descriptions are used. Following the logic outlined above, a person could be assumed to mention those traits which are most apt in describing his behavior in response to questions such as "who are you?" or "what are you like?" McGuire and Padawer-Singer (1976) have demonstrated that this is the case. They found when a person is asked to describe himself he tends to mention his position on those dimensions where his characteristics are most distinctive. A person who is very shy or very outgoing is more apt to describe his usual social behavior than a person who feels more average on this dimension. The salience of any trait dimension in the self-concept undoubtedly has many determinants. McGuire and Padawer-Singer stress the distinctiveness theory of selective perception

which predicts that the most salient traits in the self-concept are those which are peculiar in a person's social milieu. These authors mention six other determinants of trait salience in the self-concept: situational demand, stimulus intensity, availability (recency, familiarity, etc.), momentary need, personal values, and past reinforcement. These factors all seem important, but the effects of simple feedback from friends and relatives as well as social comparison are neglected in this list. In interaction with others we have opportunities to test our self-concepts against the images others have of us. Simultaneously, through observations of others we learn how we differ from them and what we have in common with them. For example, an individual might say to himself, "See how John just went up to that stranger and asked for information? I would never do that. I must not be very outgoing." In a spontaneous self-description, a person who had had many similar thoughts in social settings would be very likely to mention being shy, reserved, or timid.

Given this theoretical background, we can proceed to the concerns of the present study. Basically we wanted to investigate the utility of self-descriptions as tools for personality assessment. We hoped that self-descriptions would fall into a reasonably tight typology and that these types would be related to important behavioral and attitudinal measures. If these assumptions proved to be true, a viable alternative to traditional trait inventories could be developed which would incorporate the positive characteristics of both nomothetic and idiographic assessment techniques.

Unfortunately, content analyses of responses to open-ended questions such as "Who are you?" and "How would you describe yourself?" have been rarely reported in the literature since Bugental and Zelen (1950) introduced this method. This method, however, does seem to be used quite frequently in studies of

student development like our own. We sense a need for a simple and meaningful method for handling self-description data which not only takes into account recent theoretical advances but also attempts to do justice to the whole individual by treating all relevant trait dimensions simultaneously. The remainder of our paper will describe such a method and examine its validity.

Method

Subjects. The data reported in this study were obtained from 94 students at the University of Michigan who were just completing their second year in a combined A.B. - M.D. program (Inteflex). The Inteflex program admits students directly from high school and awards the M.D. after students have completed six years of integrated courses taken in the literary college and the medical school. The subjects represent two separate classes (entering in 1974 and 1975). There were 55 males and 39 females in this group. All subjects participated voluntarily in this research.

Procedure. In the course of semi-structured interviews conducted by graduate student research assistants, the subjects were asked, "In general, how would you describe yourself as a person?" Their responses were recorded verbatim. If the respondent had difficulty answering the question, the interviewer rephrased the question (e.g., "What are you like?")

Prior to admission to the university and again after one year in the Inteflex program, the subjects completed a short form of the Omnibus Personality Inventory (OPI) originally developed by Heist and Yonge and shortened by CRLT (Kulik, Revelle and Kulik, 1972) and the College Student Questionnaire (CSQ) published by The Educational Testing Service. Nine scales were scored from items in these two inventories. The mean scale scores, pre and post, and their

reliabilities (as approximated by the KR-20 formula) are shown in Table 1.

SAT scores and first-year college grade point average were obtained for each subject from admissions records and college transcripts.

Other questions asked during the course of the interview which are pertinent to this study were:

How satisfied are you now with the Inteflex program in general?
How satisfied are you with your overall experience since coming to the university?
How satisfied are you about your performance thus far?
How much do you interact with other Inteflex students outside of class?
How much do you interact with non-Inteflex students?

Over the past two years, how much have you changed as a person in general
in your values and outlook on life?
in your religious views?
in your interpersonal relations?
in your political outlook?
in your leisure activities?
in your view of doctors and what they do?
in your certainty of wanting to become a doctor?

(These questions were answered on 6-point scales with 6 being the maximum)

Results

In the content analysis of the self-description data nine bipolar trait dimensions clearly emerged. Very few of the responses did not fit neatly into these categories at one end of the continuum or the other. Subjects who did not mention a trait which would have placed them at one of the poles were given an intermediate score. Table 2 contains the coding scheme used for the self-description data and the frequency distribution of subjects falling into each category. Table 2 also includes a table of intercorrelations of the self-concept

dimensions which indicates their relative orthogonality.

After coding the data as shown in Table 2, a casewise cluster analysis was performed (Euclidean distances, complete algorithm) in order to isolate the self-description profiles which were most similar. When five or more clusters were saved the groups became too fragmented to analyze (less than 5 subjects in a cluster) so four clusters were saved for subsequent analyses. An indication of the characteristic profile of each cluster, as well as the distribution of students in each, are given in Table 3.

Table 4 sheds further light on the definition of each cluster. It contains the mean factor scores of individuals in each cluster on the factors which underlie the 9 bipolar trait dimensions. The loadings of each dimension on these three factors are given in the bottom half of Table 4.

Tables 3 and 4 indicate that students of the predominant self-description type (Cluster 1) see themselves as active, competitive, sociable, and striving. We labelled these the "Achieving Sociables". Cluster 2 is made up of individuals who see themselves as emotional, easy-going, confident, and happy. These we labelled the "Carefree Positives." The "Striving Solitaries" report being achievement-oriented, unsociable, and insecure more often than students in the other clusters. Cluster 4 is made up of students who claim to be introspective, reserved, somewhat lacking in confidence, and not especially happy. These "Passive Negatives" also report more often that they are cynical or pessimistic.

Table 5 contains data bearing on the differences between the clusters on dimensions not directly related to the self-concept. The numerous differences which exist between the clusters on these variables will be examined in the discussion section of this paper. The SAT and GPA differences reported in this table reflect some interaction of these variables with sex. Males score higher on the SAT-Math ($F=3.5$, $p<.07$) and on first-year GPA ($F=3.5$, $p<.06$). Self-concept

groups 2 and 4 have disproportionate numbers of males and females, males being underrepresented in Cluster 2 and overrepresented in Cluster 4.

Perceived changes in personality, values, religious outlook, etc., (all measured on 1 to 6 scales as reported by the student) are displayed in Table 6. A different perspective on the differences between self-concept types is afforded by Table 7 in which changes during the first year of college on the standardized personality scales are reported.

Discussion

Our discussion will focus on two relatively separate aspects of these data. Initially, the specific findings which related to the relations between self-concept and student development will be reviewed with comments regarding the Inteflex program itself. This section should serve as an example of the applications of our methodology which might be possible in similar studies. In a second, briefer section we will comment on a few more abstract issues relating to the measurement of self-concept and the adequacy of our particular method.

Self-concept and the Inteflex Student

The basic thrust of our findings demonstrates that this group of Inteflex students is not homogeneous with regard to their self-concepts. The fact that self-concepts differ would not be especially important unless it were demonstrated that such differences relate to crucial indicators of student development such as achievement, values, and satisfaction. The multitude of relationships we discovered therefore have important implications for administrators and program evaluators who tend to assume that student experiences and responses to a program such as Inteflex are relatively univalent. Given the selection process undergone by the Inteflex students, which would tend to produce a group of individuals

sharing many characteristics, one could easily assume that in other educational groups one would find even less homogeneity. The self-concept types we isolated will be examined separately here in order to accentuate the range of students which are channeled into the same educational environment.

Cluster 1, the Achieving Sociables, constitutes the majority of our sample. One might expect more variation among these students, because of the group's size, than among the other clusters, but an examination of the variances on our measures reveals that individuals in Cluster 1 are no less similar to each other than those in the smaller groups. These students have the lowest academic qualifications of the 4 clusters (see Table 5) and they, consequently, are least satisfied with their performance. How can we account for this on the basis of the relatively positive and stable self-images they claim to hold? Data in Table 7 indicates that the Achieving Sociables score lowest on Liberalism, Social Conscience, Cultural Sophistication, and Intellectualism as they enter the program. Keeping these data in mind, we can examine Table 6 where these same students report the highest levels of change in values, political outlook and cultural interests. These are apparently fairly conventional students who suffer from a mild culture shock as they are plunged into the liberal undergraduate environment. The excitement of these changes and the newness of experience would seem to interfere with concentration on studies.

Cluster 2, the Carefree Positives, are characterized by confidence, social assertiveness, and an easy-going approach to life and school. These traits combine somehow to help them adjust and adapt in the most positive fashion to the Inteflex environment. These students are highly satisfied with the university, the program, and their own performance. They have active social lives both within and outside the Inteflex program. Their average GPA during their

freshman year is a respectable 3.43. Data in Table 7 indicate that students in this group become detached from their families and establish themselves as autonomous individuals quite easily (low anxiety level, high change in Family Independence). The high mean Authoritarianism score for this group indicates that many of these students are religiously active and perhaps more conservative than other students. The Carefree Positives are highly committed to careers in medicine. Ninety-two percent of them report being fairly certain or very certain of their decision to enter medicine when they entered the program. Their level of certainty increased in all 12 cases during the first two years in the program. The overall picture one gets of these students is one of stability. This is reflected in their low estimates of overall personality change and value change in Table 7. Only their leisure activities seem to have undergone much transformation probably as a function of varied and stimulating social involvement.

The third cluster, the Achieving Solitaries, are distinctive in their low sociability and low confidence. They also portray themselves as being actively striving and concerned with achievement. Students in this group are not especially pleased with their general experience at the university, nor with their academic performance. They report the lowest levels of social interaction both within and outside the Inteflex social group. Data in Table 7 reveal that upon entry to the program, the Achieving Solitaries were more dependent on their families than students in the other clusters. Even after the first year of college, their mean score on the CSQ Family Independence scale was 4 to 5 points below the mean of the other groups combined. This phenomenon is certainly related to the marked decline in their scores on the OPI Sociability scale (see Table 7) which were already the lowest of the four clusters when these students were freshmen.

One would expect that this extreme family dependence and detachment from peers would have a strong influence on personality and value change reported by the Achieving Solitaries. They sense that they have undergone a large amount of change in this general area (see Table 6). Specifically they report the largest changes in their religious outlook and in professional views and commitment. One would expect that the change in the religious area reflects a decline of activity in the religion of their parents. In the realm of career development, our data show that these students enter the program with doubts as to their commitment to medicine. Less than half of them report being certain or fairly certain of their career choice (compared to an average of 80% in the other clusters). Over the first two years in the program most of these students became more committed to a career in medicine, although two of the fifteen reported a decline in commitment. Finally, it is striking to note the effect of this group's low level of social involvement or changes in other areas of values or interest. This group reported low mean changes in political outlook, values, cultural interests, leisure activities, and relations with parents.

The fourth self-concept type does not perhaps deserve the label Passive-Negatives. They do, however, score lowest on the Contentedness factor and the energy level factor (Table 4) and they are least satisfied with the Inteflex program (Table 5). One must keep in mind the fact that these are the brightest students in our sample. They have an A- average for their first year GPA compared to the B+ averages of the other groups. Their mean SAT-Math is 721, quite high even for this selected sample. Any dissatisfaction reported by this group might be a reflection of valid problems in the program, perhaps poor teaching, lack of challenge, or slow pace in courses geared for students of lower ability levels.

In the personality realm, the Passive-Negatives have an interesting initial profile and pattern of changes. Upon entry to the program, they are very detached from their families; "autonomous" would perhaps be a better word to describe their situation. They score very high on Liberalism and Social Conscience and are less socially outgoing than the bulk of students (Table 7). Their Anxiety score is initially low but increases by two points during the first year of college. This reflects either an increased tendency to admit to having "undesirable" thoughts and impulses or an actual increase in impulsiveness and anxiousness. At the end of two years in the program, the Passive-Negatives report large changes in their style of dealing with others (in general, more withdrawn) and in relations with their parents (Table 6). Their liberal political views remain stable. They report drastic changes in their image of what doctors are like. These students probably enter with an idealized view of doctors and become discouraged as they discover the realities of the medical profession. Despite this frustration, the level of commitment to medicine among these students is high and would appear to match their potential for contribution to it.

Assessment of the Self-Concept

Our data indicates that the isolation of self-concept types through cluster analytic methodology is not only possible, but fruitful. The groups we isolated differed in self-concept in meaningful, interpretable ways and these differences related powerfully to important criterion variables such as academic performance, intellectual ability, satisfaction in college, and personality change. We believe that this method was effective primarily because it takes into account differences on many dimensions

simultaneously. Whereas most personality research contents itself with looking for differences between groups partitioned on a single dimension, we were able to make use of information on nine dimensions. Personality research of this sort would seem to approach the holistic methods called for by so many "humanistic" psychologists.

Several questions arose, however, in the course of our work. How can we best handle the cases where a respondent does not mention a dimension of personality as being self-descriptive? It is appropriate to assume, as we did, that such persons have moderate levels of these traits? How many groups should one try to isolate? What is the best manner to proceed in coding spontaneous self-descriptions? How many dimensions are adequate? Which dimensions seem to differentiate little between persons? Our data provide the beginnings of answers to these questions, but there are more. How generalizable are such self-concept types? How do they relate to rationally established typologies such as those of Clark and Trow or Holland? Should males and females be analyzed separately? and so forth.

Self-concept assessment along the lines we have presented in this paper provides a viable companion to traditional personality assessment. Construct validity and concurrent validity of both assessment types will be easier to establish when they are used in combination. This assertion is made possible by accumulated research findings which demonstrate that a person's self-image is generally a reliable synthesis of his subjective experience of himself and the objective feedback he receives from those around him. Personality psychologists no longer need to avoid excursions into this area of research; in fact, our experience indicates that spontaneous self-descriptions should be considered for their potential contribution to any research program.

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TABLE I

OPI and CSQ Scale Score Means and Reliabilities

OPI (Range 0-25)	Pre $\bar{x}$ (SD)	Post $\bar{x}$ (SD)	Averaged Reliability (KR-20) *
Anxiety	5.56 (5.02)	6.06 (5.45)	85
Intellectualism	18.37 (5.56)	15.90 (6.34)	.81
Authoritarianism	8.16 (5.19)	6.97 (4.86)	.82
Sociability	21.35 (6.23)	18.60 (6.45)	.82
CSQ (Range 10-40)			
Family Independence	22.37 (4.08)	23.66 (6.51)	.70
Peer Independence	25.23 (3.71)	23.85 (6.17)	.64
Liberalism	29.79 (4.68)	27.90 (7.60)	.72
Social Conscience	31.86 (4.11)	30.31 (7.32)	.63
Cultural Sophistication	26.01 (4.29)	25.20 (6.96)	.74

* Average calculated from the 1974 and 1975 applicant populations, 203 and 332 cases respectively.

TABLE 2

Frequency distribution of self-description responses on the bipolar trait dimensions

Dimension				Left pole	No mention	Right Pole
Emotionality	Controlled, stable, calm	vs.	emotional, highstrung	16	59	19
Activity	Introspective, passive	vs.	active, competitive	17	49	28
Achievement	Easy-going, relaxed	vs.	perfectionist, striving	7	43	44
Sociability	Introverted, reclusive	vs.	sociable, outgoing	14	35	45
Empathy	Selfish, callous	vs.	emphathic, sensitive	2	37	55
Confidence	Insecure, immature	vs.	confident, mature	9	65	20
Intelligence	Dumb, slow thinker	vs.	intelligent, bright	1	61	32
Contentedness	Depressed, moody	vs.	happy, fun-loving	6	58	30
Optimism	Pessimistic, cynical	vs.	optimistic, positive	3	82	9

TABLE 2A

Intercorrelation Matrix of Self-description dimensions

Emotional								
Active	.30							
Achievement	.19	.17						
Sociable	.19	.24	.07					
Social concern	.23	.10	.14	.20				
Confident	.19	.10	.20	.37	.16			
Intelligent	.20	.14	.13	.23	.27	.27		
Happy	.01	.29	.10	.24	.03	.24	.14	
Optimistic	.28	.20	.21	.09	.25	.20	.18	.21

	Emotional	Active	Achievement	Sociable	Social Concern	Confident	Intelligent	Happy

$\underline{r}$ at .01 = .26

$\underline{r}$ at .01 = .20

TABLE 3

Mean Trait Dimension Scores From Self-descriptions
For The Four Clusters

	1	2	3	4
Emotionality	2.1	2.2	1.9	1.9
Activity	2.4	1.7	2.1	1.4
Achievement	2.5	1.5	2.6	2.1
Sociability	2.7	2.5	1.2	2.1
Empathy	2.5	2.7	2.6	2.5
Confidence	2.2	2.5	1.7	1.8
Intelligence	2.4	2.4	2.1	2.2
Contentedness	2.3	2.7	2.1	1.8
Optimism	2.1	2.1	2.2	1.9
N	52(55.3%)	12(12.7%)	15(16.0%)	15(15.0%)

TABLE 4

Mean Factor Scores of Each Cluster on Factors
Underlying the 9 Bipolar Trait Dimensions

Self Concept Factor	1	2	3	4	Eta*
Energy level	.20	-.21	.16	-.42	.39
Contentedness	.18	.40	-.17	-.64	.45
Social Assertiveness	.24	.51	-.74	-.25	.65

(*All $p<.001$)

[Factor loadings of the 9 bipolar trait dimensions
on the above three factors (Varimax rotation):

	Factor 1	Factor 2	Factor 3
Emotionality	.58	--	--
Activity	.46	.36	--
Achievement	.31	--	--
Sociability	--	--	.52
Empathy	.34	--	--
Confidence	--	--	.57
Intelligence	--	--	.43
Happy	--	.73	--
Optimistic	.49	--	--
% Variance (Cum.)	11.9	20.5	31.8]

TABLE 5

Differences in Mean Satisfaction Ratings and Levels of Social Interaction among the Self-Concept Types*

	Self - Concept Type					
	1	2	3	4	eta	p
Satisfaction w/ overall university experience	4.92	5.41	4.60	4.80	.27	.07
Satisfaction w/ Inteflex Program	4.92	5.41	5.00	4.73	.29	.05
Satisfaction w/ own performance	4.41	4.66	4.46	4.93	.16	---
Interaction within Inteflex	4.48	4.66	3.86	4.46	.17	---
Interaction outside Inteflex	4.67	5.41	3.86	4.40	.37	.01
MSAT	693	703	709	721	.20	---
VSAT	639	640	645	649	.07	---
First year GPA	3.31	3.43	3.39	3.61	.28	.06
N	52	12	15	15		

*All ratings were made on a 1(low) to 6 (high) scale.

TABLE 6

Differences in Mean Ratings of Change on Various Dimensions of Values, Personality, and Professional Outlook*

Area of Change	Self - Concept Type 1	2	3	4	eta	p
Overall change as a person	4.17	3.67	4.33	4.35	.16	---
Values	3.38	2.58	2.53	2.85	.25	.12
Interpersonal relations	2.84	3.41	3.00	4.00	.27	.07
Political outlook	2.53	2.08	2.00	1.92	.20	---
Religion	2.38	2.16	3.33	2.30	.27	---
Cultural interests	3.09	2.16	2.06	2.57	.32	.02
Leisure activities	3.11	3.25	2.26	2.71	.27	---
Relations w/ parents	3.06	3.08	2.26	3.29	.20	---
View of doctors and their work	3.02	2.67	3.80	4.43	.41	.001
Level of certainty about want to be MD.	2.96	1.58	3.42	3.07	.33	.02
N	52	12	15	15		

*All ratings were made by the respondent on a 1 to 6 scale.

TABLE 7

Change Scores on OPI and CSQ Personality Scales*

Scale	Self-Concept type 1	2	3	4	p level
ch Family Independence	1.46 (21.5)	4.41 (20.8)	1.93 (19.5)	3.46 (23.4)	.07
ch Peer Independence	-.36 (23.8)	-1.16 (24.9)	.33 (23.3)	-.06 (25.8)	n.s.
ch Liberalism	-.05 (27.7)	-.08 (27.9)	-1.70 (28.1)	-2.0 (32.3)	.12
ch Social Conscience	.57 (29.7)	.25 (31.7)	-2.07 (30.0)	-1.3 (32.9)	.03
ch Cultural Sophistication	.80 (24.5)	.58 (25.4)	-1.40 (25.3)	- .06 (25.5)	n.s.
ch Anxiety	.11 (5.7)	.16 (5.0)	.66 (5.3)	2.00 (5.7)	n.s.
ch Intellectualism	-1.42 (17.6)	-2.58 (19.9)	-3.13 (17.9)	-3.93 (20.1)	.20
ch Authoritarianism	-.86 (7.7)	-1.08 (10.5)	-.73 (8.3)	-2.07 (7.5)	n.s.
ch Sociability	-2.02 (21.7)	-1.41 (24.2)	-3.80 (19.3)	-3.40 (19.9)	.10
N	52	12	15	15	

*Initial level is given in parentheses after the change score.